

*granites* present their accustomed alternations and passages into each other, and so continue to the mouth of Rock Creek, in the District.

The rocks just enumerated are the prevailing ones of the county, and occur together variously associated; so that transverse sections made through the beds of the Seneka and of Rock Creek, would nominally present the recurrence of the same kinds of rocks. But, as our object now is to consider them solely in their economical relations, it is not necessary to dwell on the geological peculiarities they exhibit, any farther than will serve to groupe them in a way to illustrate more satisfactorily the agricultural and mineral resources of the county. The county may thus be divided into four principal regions, namely: the basin of the Patuxent, including the valley of Hawling's river; the basin of Rock creek; that of the Seneka; and the Sugar-lands, so called. Under these heads, I shall now proceed to give an account of the physical geography and agricultural condition of the county.

1st. *Basin of the Patuxent, including the valley of Hawling's river.*

—This portion of the county comprises a long belt of inferior hills, or spurs, between the river and an elevated ridge, upon which, starting from Damascus, Cracklingtown, Mechanicsville and Sandy Spring are located. Its length is about twenty-three miles, and its greatest breadth, measured from Cracklingtown, through Unity, to Triadelphia, is six miles. In its upper part, the rocks, as already stated, are *argillites* and *talcose slates*, passing into *steatites* and *serpentine*; and as these last are magnesian rocks, the soil which they produce is meagre, and in many places quite arid. Yet the talcose slate, although it contains a large proportion of magnesia, produces by its decomposition a light red soil, which yields very well in oats and corn; and when it passes into a slaty *hornblende*, it is always found to give rise to a good wheat soil. The rocks just named are the predominant ones that make their appearance along the banks of the Patuxent, in Montgomery county, the trough of which, in many places, affords extensive alluvial flats, covered by a rich vegetable mould, very productive, and convertible into fine meadows. In the lower and central portions of the region now under examination, and especially in the valley of Hawling's river, the predominant rocks are *hornblende*, compact and slaty, *gneiss*, *micaslate*, *sienites*, and various *granitic* aggregates, yielding as many different kinds of soil, which, though possessed of little depth, are well constituted, and all of them highly improveable by the usual tillage, which has a tendency to deepen as well as to comminute and mix their several constituents. They take plaster kindly, and by the application of one hundred to one hundred and fifty bushels of lime to the acre, may be made equal to the best lands of the State. Already, indeed, has the use of lime by several of the most intelligent and enterprising farmers of these parts, made the valley of Hawling's river and the vicinity of Brookeville the most productive and flourishing portions of